

OPA

S E C R E T

IN 39792

TOR 24/1920Z DEC 69 EWM

S E C R E T 241825Z DEC 69 CITE

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REFS: A. (NOTAL)

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B. (CIN 37012) ✓

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C. (CIN 38595)

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SUBJECT: FLIGHT TEST PLAN

1. RE REF A SCHEDULE: APPROVED TO FLY MAGIC PAINT TEST

FLIGHT ON 7 JAN 1970 USING ART 383 AS TEST AIRCRAFT, ART 055 AS HIGH CHASE AND T-33 AS LOW CHASE. BACKUP DATE FOR TEST IS 8 JAN 1970.

2. APPLICABLE PORTIONS OF HQS GUIDANCE IN PARA 2 REF B APPLY FOR THIS TEST.

3. ART 383 PREPARATION AS FOLLOWS:

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A. PAINTING WILL BE ACCOMPLISHED AT BY

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PAINTERS ON 29 - 31 DEC. OLD TEST PAINT SURFACES WILL BE STRIPPED OFF PRIOR TO APPLYING NEW PRIMERS AND MAGIC PAINTS. CARE MUST BE TAKEN TO PROTECT NEW SURFACES PRIOR TO FLIGHT.

B. FOLG COMBINATIONS OF NCP FORMULATIONS AND PRIMERS TO BE TESTED:

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- (1) NEW HIGH TEMP (PLUS 14 DEGREES F) OVER WHITE UNDERCOAT.
- (2) NEW HIGH TEMP (PLUS 14 DEGREES F) OVER YELLOW.
- (3) NEW HIGH TEMP (PLUS 14 DEGREES F) OVER GREEN.
- (4) LOW TEMP (MINUS 8 DEGREES F) OVER WHITE.
- (5) LOW TEMP (MINUS 8 DEGREES F) OVER YELLOW.
- (6) LOW TEMP (MINUS 8 DEGREES F) OVER GREEN.

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C. PAINT SCHEME:

- (1) TEST SURFACES WILL BE AS AGREED TO IN TELECON

23 DEC 1969, I.E., THE AREA AFT OF 48 PERCENT BEAM OUTBOARD OF WING STATION 300 TO WING TIP, TOP AND BOTTOM, AND NOT INCLUDING THE SKID AREA. ADDITIONALLY, THE TOP AND BOTTOM OF THE WING FLAP SURFACES INBOARD FROM THE EXISTING REFERENCE COLOR SPECTRA WILL BE TREATED. THE SIZE OF THE FLAP TEST AREA WILL BE DETERMINED BY THE REMAINING AVAILABLE MAGIC PAINT SUPPLY. PREVIOUSLY TREATED AREA ON THE VERTICAL STAB WILL NOT BE REPAINTED AND WILL BE USED FOR AGING COMPARISON TO PREVIOUS TESTS.

- (2) EACH WING WILL HAVE THREE TEST AREAS (TOP AND

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BOTTOM); TWO PANELS OF APPROX EQUAL AREA WILL BE
OUTBOARD OF EXISTING COLOR SPECTRA AND SEPARATED
BY A 6 INCH BAND OF VELVET BLUE; THE OTHER AREA WILL
BE INBOARD OF THE COLOR SPECTRA ON THE FLAP SURFACE.
THE NON-TREATED WING SURFACES FORWARD OF 48 PER CENT
BEAM OUTBOARD OF WING STATION 320 INCLUDING THE
SKITS, WILL BE PAINTED VELVET BLUE FOR CONTRAST TO
THE TEST PANELS.

(3) THE OUTBOARD PANEL ON EACH WING WILL USE
A YELLOW UNDERCOAT.

(4) THE CENTER PANEL ON EACH WING WILL USE A GREEN UNDERCOAT.

(5) THE INBOARD (FLAP) PANEL WILL USE A WHITE
UNDERCOAT.

(6) THE NEW HIGH TEMP FORMULATIONS (PARA 3B)
WILL BE APPLIED TO THE LEFT WING.

(7) THE LOW TEMP FORMULATIONS (PARA 3B) WILL BE
APPLIED TO THE RIGHT WING.

D. THE REFERENCE COLOR SPECTRA WILL BE USED AS FOR
PREVIOUS FLIGHT.

E. SMALL DETACHABLE PANELS TO BE TREATED WITH

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EACH OF THE TEST FORMULATIONS WILL BE ATTACHED SO THE PILOT MAY OBSERVE THEM IN FLIGHT.

F. INSTRUMENTATION- REQUEST THERMOCOPULE INSTALLATION MODIFIED TO MEASURE TEMPERATURE ON EACH OF THE FOUR OUTBOARD TEST SURFACES TOP AND BOTTOM. INSTALLATION WILL BE CALIBRATED AND TESTED PRIOR TO FLIGHT.

4. HIGH PORTION TEST PROCEDURES - ART 383 AND 255 WILL TAKE OFF AND CLIMB IN LOOSE VISUAL FORMATION TO OPERATIONAL ALTITUDE (LEVEL OFF DESIRED AT 70M, IF FEASIBLE). DURING CLIMB PILOTS WILL RECORD ANY UNUSUAL COLOR PHENOMENA OBSERVED. AT LEVEL OFF THE HIGH CHASE (255) WILL ACCOMPLISH VISUAL CHECKS, PHOTOGRAPHY AND DATA RECORDING ON THE SHIPS RECORDER SYSTEM. DESIRE ADDITIONAL VISUAL CHECKS FROM APPROX 1 NM ASTERN ABOVE AND BELOW TO RECORD ANY DIFFERENCES NOTED FROM CLOSE UP OBSERVATION. WHEN HIGH PORTION OF TEST COMPLETE, AIRCRAFT WILL BREAK OFF FORMATION AND CONTINUE ON BRIEFED PHOTO MISSION. FORMATION PROCEDURES AND SAFETY CRITERIA WILL BE AT COMDR DISCRETION. FLYING SAFETY IS PARAMOUNT AND WILL NOT BE COMPROMISED TO ACCOMPLISH TEST OBJECTIVES.

5. LOW PORTION TEST PROCEDURES - DURING TERMINAL DESCENT,

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THE TEST AIRCRAFT WILL RENDEZVOUS WITH T-33 AT FL 300 - 350 WITH THE EXACT ALTITUDE DETERMINED BY THE COLDEST FORECAST TEMP AND ALT COMBINATION WITHIN CAPABILITY OF BOTH AIRCRAFT. DATA COLLECTION, RENDEZVOUS, JOINUP, AND FORMATION SAFETY PROCEDURES FOR THE PORTION OF THE TEST WILL BE AS PREVIOUSLY ESTABLISHED.

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6. VISUAL OBSERVATIONS - IN THE INTEREST OF SEEKING UNIFORM TEST RESULTS, REQUEST SAME PILOTS PARTICIPATE IN THIS TEST AS FOR PREVIOUS TESTS.

7. PHOTOGRAPHY - SAME REQUIREMENTS AS FOR PREVIOUS TESTS. PARA 7, REF C APPLIES FOR THIS TEST. USE OF TELEPHOTO LENSE AND DOUBLE FILTER ARRANGEMENT COMPRISED OF A 90 - 750 MICRON DICHROIC WITH A HARRISON HAVING A DENSITY ABOUT HALF THAT OF WRATTEN 85, IS DESIRED.

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8. TECHNICAL COORDINATOR NOT PLANNING TO OBSERVE THIS TEST. TELECON COORDINATION IF PROBLEMS ARISE, IS ENCOURAGED.

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9. BARRING UNFORESEEN PROBLEMS, ANTICIPATE THAT THIS WILL BE LAST PHASE I TEST. REQUEST PROVIDE WITH FINAL EVALUATION SUMMARY OF PHASE I TEST PROGRAM TO INCLUDE RECOMMENDATIONS FOR FURTHER DEVELOPMENT AND OPERATIONAL APPLICATION TO U-2R.

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END OF MSG